

## Basement Finish Guide

**Note:** This Guide is for general information only and does not identify every code requirement which may apply.

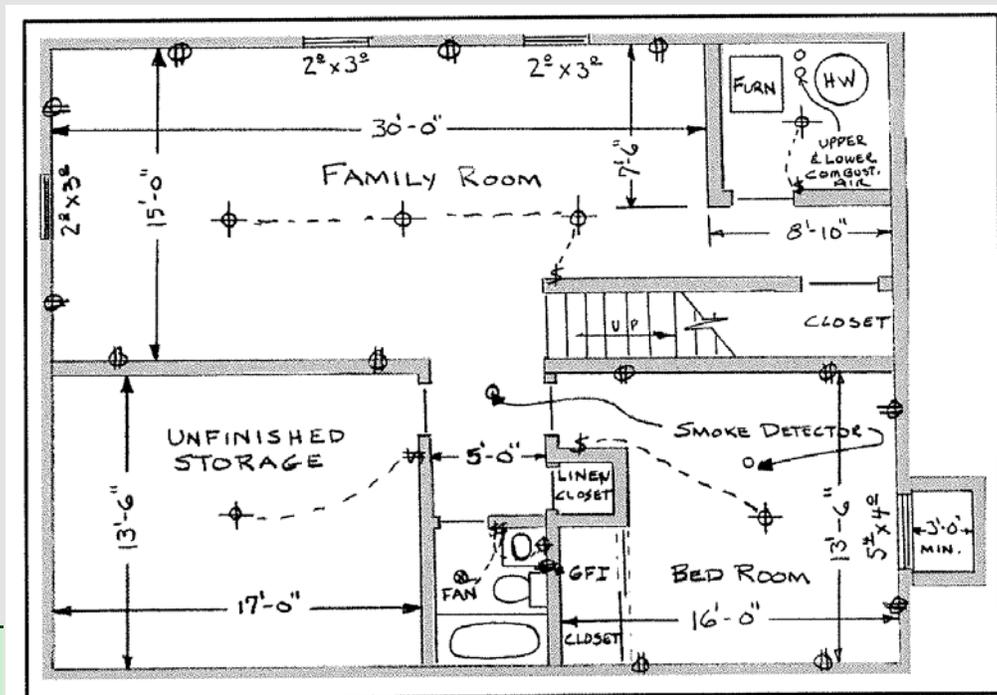
### Permits:

- Basement finishing requires a Building Permit.
- Plumbing, Heating, and Electrical permits may also be required.
- Fireplace installation requires a separate permit.

### Plan Submittal:

- Application for a Building Permit requires two sets of plans showing:
- Basement layout indicating use of each room. Include dimensions of the rooms.
- Walls, doors and windows. (Indicate if new or existing, sizes are required)
- Smoke detectors.
- Sump baskets.
- Furnace, water heater, plumbing fixture layout and other equipment.
- Please leave a blank space (3"x4") on the plan for city approval stamp and comments.

### Example of floor plan for review



## Basement Finish Guide (pg. 2)

### General Code Requirements:

- Bottom plates of proposed walls must be pressure treated lumber to resist rot.
- Enclosed areas under stairs must be entirely finished with ½ inch gypsum board.
- Minimum headroom clearance in finished habitable areas is 7'0".
- Smoke detectors are required on all levels of the house and in all sleeping rooms. 110 volt electrical wiring is required in new construction, and the smoke detectors shall be interconnected and equipped with a battery backup. CO detectors are also required within 10' of all sleeping areas.
- **New bedrooms need to have an escape (egress) window with:**
  1. An overall minimum clear open able area of 5.7 sq. ft.(821 sq. in.)
  2. A minimum clear opening height of 24 inches.
  3. A minimum clear opening width of 20 inches
  4. A finished sill height of not more than 44 inches above the inside floor.
  5. A below grade window must have a window well with a minimum 9 sq. ft. of net clear area with the window fully opened.
  6. A permanent ladder is needed in the window well if it is greater than 44 inches from the ground to the top of window well. Window well must be “upsized” to accommodate the ladder space.

### Plumbing:

- Water closet must be centered in a clear space of not less than 30 inches wide and have a clear space in front of the water closet of not less than 24 inches.
- Each bathroom needs to have a powered exhaust fan venting to the outside. The last 6 feet of the exhaust duct must be wrapped with a minimum of R-3 insulation.
- Showers stalls must be at least 900 square inches in floor area and large enough to provide a 30 inch diameter clear circle at the height of the shower control handle.

## Basement Finish Guide (pg. 3)

### **Mechanical:**

- Furnaces must have an unobstructed working space of at least 30 inches in front of the unit and other clearances as required by the manufacturer specifications. A 24"X80" door shall be available to access the space. The replacement of equipment shall be completed without having to move other equipment.
- Access must be provided for service and replacement of:
  1. Water Heaters
  2. Water Conditioning Equipment
  3. Water, Electric and Gas Meters
  4. Traps and Slip Joints on Bathtubs
  5. Pumps and Controls on Whirlpool Tubs
  6. Plumbing Cleanouts
- Furnaces and water heaters must be provided with outside combustion air.
- Furnaces may not be accessed through or located in a bedroom or bathroom.
- Furnace vent must have a minimum clearance to combustibles of 1 inch when class "B" pipe is installed and 6 inches for single wall pipe.

## Basement Finish Guide (pg. 4)

### Electrical

- Electrical panels must not be in closets and a minimum of 3 feet of clear floor space must be maintained in front of the panel.
- **Electrical issues to consider:**
  1. Bedroom electrical opening for light, power, and smoke detectors must be ARC fault protected.
  2. Bathroom receptacles must be on a dedicated 20 amp circuit and be GFCI protected.
  3. Non IC recessed lights must have ½" clearance from combustible surfaces.
  4. Surface mounted incandescent light in closets must be enclosed and be a minimum of 12 linear inches from the edge of the light fixture to the nearest point of storage space.
  5. Surface mounted fluorescent fixtures in closets must be a minimum of 6 linear inches from the edge of the light fixture to the nearest point of storage space.
  6. No parts of hanging, cord connected, track lighting, pendant type fixtures or ceiling paddle fans shall be located above or within 3 feet horizontally and 8 feet vertically of the top rim of a bath tub or shower stall threshold.
  7. GFCI/ARC FAULT Protection: Receptacles in unfinished storage areas, work rooms, bathrooms, garages, crawl spaces, and over kitchen countertops must be GFCI protected.

### Inspections to be conducted:

- Rough in plumbing, electrical, and heating must be inspected before concealing any work.
- Framing and insulation inspection shall be conducted after all plumbing, electrical and heating systems have approved.
- Final electric, plumbing, heating and building inspections.

*If you have any questions regarding this process please call our Building Department at 651-638-2050.*